5/3/05 Meeting Notes – Landfill Stability Workgroup
Raptor Conference Room – South Central Region Headquarters
website: http://dnr.wi.gov/org/aw/wm/solid/landfill/stability/index.htm

Attending: Sherren Clark (BT^2), Bob Ham (UW-Madison), Gerard Hamblin (WMWI), Dan Leclaire (WMWI), Gene Mitchell (DNR), John Reindl (Dane County), Joe Van Rossum (UW-Extension/SHWEC), Todd Watermolen (Onyx), Brad Wolbert (DNR)

I. General Items: One legislative hearing was held on the proposed NR 500 administrative rule changes passed by the Natural Resources Board in March, and another is planned for early May. Those that testified requested that the rule be held up.

An internal DNR financial responsibility team is in place, and an external workgroup will soon be established, to develop a set of proposed rules addressing perceived gaps in financial responsibility code provisions.

II. SWANA Position Statement: The group discussed the December 17, 2004 "Position Statement: Landfill Stability in the context of defining an appropriate level of post-closure care for a landfill" issued by the Stability Subcommittee of SWANA's Landfill Bioreactor Committee. The statement uses the term "functional stability" to indicate a landfill that does not represent a threat to human health and the environment, as opposed to "biologic stability" denoting complete decomposition of biologic materials, and suggests that functional stability is a more appropriate objective. Functional stability is a site-specific determination that "should be assessed in the context of a proposed end use and a proposed level of post-closure care, which may vary from no care, to some level of ongoing maintenance or monitoring that is designed to assure that no factors change that could increase potential threats to human health and the environment.

Individuals' comments from our discussion included:

- Using the SWANA group's efforts as a starting point for our group would increase our efficiency. Also, it's less prescriptive and potentially cumbersome, which encourages operators who don't have to participate to consider doing so anyway.

- Statement is fairly generic; also, we need to be proactive to meet deadline—can't afford to wait for others to come out with guidelines.

- The functional stability concept likely still requires constantly looking back at a closed facility, whereas we want to be able to walk away. It would also allow a do-nothing approach under certain conditions of end use, environmental setting, and post-closure care; this is unacceptable under Wisconsin's proposed rule.

- We could use the SWANA approach as a tool, but disallow "do-nothing."

- The operator will still need to evaluate whether an implemented plan is having the desired effect. This may be cumbersome relative to current practices.

III. Landfill Stability Plans: The 2 core issues discussed to date are (1) What will a legitimate plan look like? and (2) The definition of the endpoint – which is especially important if achieving stability triggers reductions in the operator's financial responsibility burden. The

rule will not specify an enforceable endpoint (don't want to play "gotcha"), but rather a process to accelerate progress towards the endpoint using the 3 main methods of diversion, processing, and enhanced in-landfill decomposition. Note that bioreactor or recirculation standards are not intended to be part of the stability plan rule; these would be covered elsewhere. Likewise, although we intend that organics diversion not lead to environmental degradation elsewhere, the rule will focus on stability for the organic material that is not being diverted; we assume necessary but separate regulation of the diverted fraction.

The process of accelerating stability would encompass 5 steps (analogous to development of a wastewater treatment plant?):

(1) a plan that reflects a defined minimum effort a landfill must undertake;
(2) implementation of the plan;
(3) measurement of progress;
(4) evaluation of the results: what do the data mean?
(5) modification of the plan, if needed based on results.

The rule would not include an actual plan outline, but would require that the plan address basic requirements. Details of how to address the requirements would be in accompanying guidance. However, we want to avoid overreliance on the guidance such that an inexperienced operator simply mimics the plan of a more experienced operator, without having the knowledge or resources to make the plan work. There is also a need to get guidance out soon: plans of operation are still being approved with design features such as sand drainage blankets that do not accommodate bioreactors.

The group discussed diversion of organics in some detail. If we are using a gas generation curve as an objective indicator of whether a stability plan is working, the effect of diversion on the curve is uncertain. The actual curve may be lower (less gas being generated) but longer (gas generated farther into the future) relative to the baseline curve if, for example, food is diverted but not paper. Is this acceptable, or should our position be that the tail of the gas curve must be shortened regardless of method? The group decided that the goal is really to reduce the remaining area under the curve after 30 years. Gas flow rate target might be set for the 30-year point, as provided for in the "presumptive stability" endpoint concept. This target might be reached through a combination of selective diversion (be sure to get paper out) and liquids addition to accelerate degradation of the organic material that remains. (Market conditions for paper might influence feasibility of diverting paper.) Operator of existing site would only get credit for diverting materials that have been taken in the past. Each facility would have its own baseline.

The group looked at two sample outlines of a stability plan and generally agreed that the more generic of the two would apply more directly to our effort. The more detailed plan would have material that might be used in a DNR-written prototype for a bioreactor plan that consultants and operators could use.

Beginning to think about rule language soon could help us focus our thoughts. The rule will need to address applicability (basically, the plan is not required to apply to older areas that pre-date the requirement), and timeframe for implementation (e.g., plan becomes effective x months after approval).

IV. Next Meeting: The next meeting will be Tuesday, June 7 at 1:00 pm in the DNR's SCR Raptor Conference Room, as previously scheduled. The following meeting is now scheduled for Tuesday, July 12 at 1:00 and will also be in the DNR's SCR Raptor Conference Room.

The focus of the next meeting will be the content of organics stability plans and corresponding preliminary rule language.